

REMARKS

Claims 1-15 are presented for consideration, with Claims 1, 14 and 15 being independent.

An editorial change has been made to the specification to correct a typographical error. In addition, the abstract has been amended to better set forth technical aspects of Applicants' invention.

In the claims, independent Claims 1, 14 and 15 have been amended to further distinguish Applicants' invention from the cited art. In addition, editorial changes have been made to selected claims.

Applicants note with appreciation that Claims 7-9 are indicated as containing patentable subject matter. These claims remain in dependent form, however, as it is respectfully submitted that independent Claim 1 is patentable in its own right for the reasons discussed below.

Claims 1-6 and 10-15 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Dye '965. This rejection is respectfully traversed.

Claim 1 of Applicants' invention relates to a method of rendering a scan line of a graphic object in a scan line renderer for spans of pixels lying between consecutive x-ordered edges intersecting the scan line. The method includes a step of maintaining a set of depths present in the rendering of the scan line, with the set being maintained in depth order. In addition, for each span, the set contains at least those depths that are active in the span, and the

set is subject to removal of at least one depth at a subsequent span on the scan line where the corresponding depth is no longer active on the scan line.

In accordance with Applicants' invention, a high performance rendering method is provided.

Claims 14 and 15 relate to a computer-readable medium and a computerized apparatus, respectively, and correspond substantially to Claim 1.

The Dye patent relates to a spanning based method for rendering and display of three-dimensional graphical data. The method starts with a set of display primitives, e.g., triangles. As understood, each span line (scan line) includes sorting triangles in Y, generating triangle segments, sorting segments in X, and performing Z rules determination for each scan line, including hidden segment removal. In addition, the display list is constructed for the span line. See, for example, Figure 5B and the specification beginning in column 15, line 51 of Dye.

In contrast to Applicants' claimed invention, however, Dye is not read to teach or suggest rendering a scan line for spans of pixels, but instead renders span lines. Dye is also not understood to teach or suggest, among other features, maintaining a set of depths present in the rendering of the scan line, and maintaining the set in depth order. The Office Action relies on column 34, lines 22-64, in Dye for allegedly teaching this claimed feature. It is respectfully submitted, however, that while this portion discloses use of a conventional Z-buffer and a hidden

surface removal process and, alternatively, a “hidden span” removal process that is performed before any triangle drawing process, there is no teaching or suggestion of maintaining a set of depths present in the rendering of the scan line with the set being maintained in depth order. Moreover, Claim 1 can be distinguished over Dye by recitation of the set containing at least those depths that are active in the span, with the set being subject to removal of at least one depth at a subsequent span on the scan line where the corresponding depth is no longer on the scan line. The portion of Dye relied on for this feature, i.e., column 36, lines 7-21, discloses a “totally visible test,” but does not teach or suggest removing at least one depth at a subsequent span that is no longer active.

Accordingly, it is submitted that Dye fails to anticipate or render obvious Applicants’ invention as set forth in independent Claims 1, 14 and 15, and thus reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §102(e) is respectfully requested.

Thus, it is submitted that Dye fails to teach or suggest Applicants’ invention as set forth in independent Claims 1, 14 and 15. Additionally, dependent Claims 2-13 set forth additional features of Applicants’ invention. For example, Claim 2 sets forth that a set of depths is updated on a per-span basis, a feature not taught or suggested in Dye. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

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Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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